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ABSTRACT

The Psychovocational model, which features a multidisciplinary team approach to composite, ecological testing in planning appropriate career/vocational goals for handicapped students, is described. The model incorporates reevaluation of each teenaged handicapped student in five areas: (1) intelligence, (2) achievement, (3) social-emotional behavior, (4) interests, and (5) vocational aptitude. The evaluation is used to predict the student's skill potential as well as social and attitudinal adjustments needed for successful future work. Examples of instruments appropriate for use in each of the five areas are cited. The model is intended to provide vocational data that can be incorporated into the written psychological report. (CL)

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A Psychovocational Evaluation Model: A New Perspective for Testing Handicapped Students

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ABSTRACT

THE PSYCHOVOCATIONAL MODEL: A NEW PERSPECTIVE TO TESTING HANDICAPPED STUDENTS

Secondary programming for handicapped students, in many instances, heavily emphasizes bringing students to a certain grade level with career/vocational education typically being offered in a haphazard manner, if at all. Career/vocational assessment, however, is an integral component in the process of providing handicapped students with skills for employability, independence, and successful life adjustment. If the psychological reevaluation were to have career/vocational components, these assessments could then be used to systematically plan for the necessary career/vocational components to be expanded or remediated in each handicapped student. Such a composite reevaluation battery might be composed of instruments that are generally used to assess in the areas of intelligence, academic achievement, and social/adaptive behavior and, additionally, include instruments to assess career interests and vocational aptitude. When psychological reevaluations contain career/vocational components, data can be generated for use in career/vocational IEP development.

Since school psychology is now beginning to show an interest in career/vocational evaluation, the inclusion of such components in every reevaluation for middle school and high school handicapped students is recommended. A Psychovocational Model, using a multi-disciplinary team approach may include a variety of persons within the student's ecological system: regular and special education teachers, guidance personnel and social workers, vocational education teachers and vocational rehabilitation counselors, school psychologists and others in the school and community setting who may be able to provide input into such a composite, ecological evaluation. The role of the trained paraprofessional may also be considered in this Psychovocational Model. If the ultimate goal of special education is to, not only bring each handicapped student up to his/her optimum achievement level academically, but it to provide them with skills for employability, independence, and successful life adjustment, then students need to be assessed appropriately to determine their strengths, weaknesses, and current functioning levels in career/vocational areas as well as in the academic areas.

The purpose of this paper is to present a model to consider the usability of current evaluation information by a variety of different persons and to look at the inter-relation of this information by a multi-disciplinary team approach to composite, ecological testing in planning appropriate career/vocational goals for handicapped students. The components of such a model and the roles and functions of personnel to implement such a model will be considered. The model suggests giving psychological evaluations to middle and high school handicapped students a "different" perspective.

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A Psychovocational Model: A New Perspective
To Testing Handicapped Students

The ultimate goal of special education is to bring students to a level of independence with skills for employability and successful life adjustment, as compared to simply bringing them to a certain grade level of academic achievement. Supporting statistics, however, from the Second Annual Report to the Congress on the Implementation of PL 94-142 indicate that only 6% of all Individual Educational Programs (IEPs) for 1979-80 contained information on vocational goals for students in the 13-15 age group and for the 16-21 age group 31% had vocational goals (Poplin, 1981). Will (1984) states that the future of youth with disabilities is uncertain as they leave public school and that between 50% and 80% of disabled adults currently are jobless. "Qualification for employment is an implied promise of American education..." (Will, 1984,p.1); thus, the Office of Special Education and Rehabilitative Services has established a new priority to improve the transition from school to the working life for handicapped individuals.

A variety of sources in the literature reflects this lack of commitment toward teaching handicapped students employability skills. Poplin (1981) relates that over one million disabled students lack career and vocational skills to compete for jobs in their communities. Barsche (1981) speaks of the three-fifths of the handicapped population who are not employed during a typical year. As a graphic illustration of the cost of such unemployed dependency, Batsche (1981) compares the $45 to $200 per day institutional settings cost to the lesser cost for educating a student at Harvard University.

Some handicapped students, however, do achieve vocational education placement, but the validity of such vocational placement is open to question, since these placements rarely are based on adequate assessment information. Vocational teachers report that they are seldom asked to participate in the development of the IEP or to even have an opportunity to review the IEP for handicapped students they teach (Barsche, 1981).

School psychologists, as a rule, are not helping to provide such secondary level vocational assessments. Instead, the main emphasis of school psychologists continues to be ability vs. achievement level orientation, particularly at the elementary level. An involvement at the secondary

level has usually been confined to retesting for special education and the referral of students exhibiting severe behavior problems (Hohenshil, 1981). Recently, a major thrust of the leadership of the National Association of School Psychologists (NASP), nevertheless, has been the recognization of vocational psychology as its first speciality in the profession (Fagan, 1981).

In the past some school psychologists have been involved in the administration of vocational assessment batteries to varying degrees. Alcorn and Nicholson (1975) report of their experiences in group administration of vocational batteries for the mentally retarded and low literate under the leadership of the psychologist assisted by evaluation aides. The areas assessed with this battery included verbal and performance scale of intelligence, academic achievement, mechanical aptitude, visual-motor perception, routine clerical aptitude, fine finger and gross arm dexterity, vocational interest areas, and personality assessment. Although the above battery was designed to be a vocational assessment, with minor additions or adjustments in most states these tests would meet the legal requirements for a scheduled reevaluation for secondary students.

The continuing problem appears to be a lack of commitment on the part of school systems toward consciously implementing the goal of educating handicapped students to provide them with life skills for employability, independence, and successful life adjustment. Secondary (junior-senior high) students first need to be assessed to determine their strengths and weaknesses, and current levels of functioning in career/vocational goal areas as well as in academic areas. Since the IEP regulations in PL 94-142 specify that goals and objective are to built upon the present levels of performance (Federal Register, August 23, 1977), appropriate evaluation procedures in career/vocational education must be done before IEP goals and objectives can be written and implemented. As existing law mandates reevaluation for handicapped students at least every three years (Federal Register, August 23, 1977) adding a vocational component to this reevaluation for all thirteen to fifteen year old would enable career/vocational education goals to be written into IEPs before entry into high school programs.

If the ultimate goal of special education is to, not only bring handicapped students up to their optimum achievement levels academically, but to provide them with skills for life successes, then secondary students need to be assessed appropriately in the career/vocational areas. If the psychological reevaluation were to have career/vocational components, these

assessments could then be systematically used in planning for necessary career/vocational components in a handicapped student's IEP. Such a composite evaluation for secondary handicapped students offers the school psychologist, for the most part, a different perspective to the traditional reevaluation. In a sense, the school psychologist is not simply testing for a current level of functioning and diagnosis, but is looking toward a future prognosis.

The Proposed Model

Reevaluation of each teenaged handicapped student is recommended to include areas of: (1) intelligence; (2) achievement; (3) social-emotional behavior; (4) interests; and (5) aptitude. The Psychovocational Model, using a multi-disciplinary team approach, may include a variety of persons within the student's ecological system: regular and special education teachers, guidance personnel and social workers, vocational education teachers and vocational rehabilitation counselors, school psychologists, paraprofessionals, and others in the school and community setting who may be able to provide input into such a composite, ecological evaluation. Additionally, the role of parental involvement and self-evaluation procedures utilized with the studert play an integral part in the overall psychovocational evaluation. According to Mutter & McClung (1981), more than simply determining vocational potential is involved in making a prognosis. Since many employees are not able to keep jobs because of poor interpersonal relationships, the area of future work habits/ adjustment needs to also be included in the composite evaluation by obtaining observational data of students trying out real jobs either "on site" or in work samples. Thus, the psychovocational evaluation needs to predict the skill potential as well as the social and attitudinal adjustments needed for successful future work.

Intelligence. An individually administered intelligence test is given to students by a qualified psychologist. Among the assumptions underlying test selection are comparable acculturation and adequate behavior sampling (Salvia & Ysseldyke, 1981). The more commonly accepted tests in school settings for secondary students are the Wechsler intelligence scales, WISC-R or WAIS-R and the Stanford-Binet Intelligence Scale. The appropriate Wechsler scale is generally used because the devices are technically adequate and allow the examiner to look ar more than global verbal, performance, and/or full-scale scores. The WISC-R and WAIS-R provide information related to individual performance on the subtests of the instruments

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(Salvia & Ysseldyke, 1981). For those students whose level of functioning falls below the lower range of the Wechsler scales, the Stanford-Binet is generally the instrument of choice. However, the standardization procedures of the 1972 Stanford-Binet cause the examiner to interpret the results with caution (Salvia & Ysseldyke, 1981).

The IQ score, in and of itself, has limited usefulness in vocational planning since the relationship between intelligence and vocational success remains unproved (Kolstoe, 1961; Elkin, 1968;, Song & Song, 1969). The Wechsler scales subtest scores and an item analysis of behavior samples on the Stanford-Binet can be very useful in indicating specific strengths and weaknesses that could be used for vocational planning (Brolin, 1982). According to Salvia & Ysseldyke (1981), intelligence tests sample behaviors and no one test samples all of the possible behaviors of intelligence. However, behaviors sampled by intelligence tests such as the Wechsler scales or the Stanford-Binet may include: (1) discrimination skills; generalization skills; (3) perceptual-motor skills; (4) general information; (5) vocabulary; (6) induction and reasoning; (7) comprehension; (8) sequencing; (9) detail recognition; (10) analogies; (11) abstract reasoning; (12) memory; (13) pattern completion; and (14) attention. A correlation of these sampled behaviors from the intelligence tests with additional tests that measure perceptual-motor functioning, such as the Bender Visual Motor Gestalt Test or the Visual Motor Integration test, and with those that measure language abilities, such as the Test of Adolescent Language, or the Detroit Tests of Learning Aptitude (Revised, 1984) that helps identify intraindividual strengths and weaknesses and specific aptitudes can be useful in supplying vocational-oriented information. Generally, such traditional evaluation procedures used by school psychologists can be modified to elicit data relevant to career/vocational planning. Thus, according to Levinson & Shepard (1982) the school psychologist does not need to "turn entirely to alternate strategies in collecting and reporting information pertinent to...occupational development." (p. 69)

Achievement. Relative to academic achievement and performance levels, both norm-referenced and criterion-referenced tests and teacher evaluations of classroom performance would be useful vocational planning information. For global skill information, tests such as the Wide Range Achievement Test WRAT) or the Peabody Individual Achievement Test (PIAT) are often used to estimate the student's current level of functioning. For more specific information in pinpointing a student's strengths and weaknesses in academic-related

areas, a diagnostic achievement should be utilized. A test with adequate behavior samples can assist in analyzing the students' performance on essential skills that will enable them to function with the greatest degree of independence as a citizen and worker in society. One example of such a test is The Brigance Diagnostic Inventory of Essential Skills. In addition to diagnostic material on basic skills, several inventories of vocational relevance are also included such as self-concept rating scale, attitude rating scale, job interview rating scale, and communication skills rating scale. The scales can be used by observers rating the student or by the student as self-reporting scales. A career-oriented approach to academic achievement is found in the Life Centered Career Education: A Competency Based Approach (Brolin, 1983). These materials infuse specific competencies for life skills with academic skills and includes assessment and IEP planning forms. Personnel involved in assessing academic achievement may include, not only the school psychologist, but teachers and other educational specialists, including well-trained paraprofessionals.

Social-Emotional Behavior. Social-emotional assessment is a particular significant component of the overall psychovocational evaluation. The observations, evaluation, and self-evaluation of social competence/skills and emotional behaviors, feelings, and attitudes will give insight and information to the vocational planning for handicapped students. No single evaluation method can provide the necessary information related to social skills. Among those procedures generally acceptable for gleaning adequate information are: (1) checklists and questionnaires, interviews, and rating data from parents, peers, and teachers; (2) self-report checklists and inventories, and (3) direct behavioral observations. According to Houff (1982), a "combination of methods are required to establish...particular social skills...and assess how the social enviornment interacts to produce an individual's level of occupational social competence."(p. 66) Among tests used for assessing adaptive behavior are the AAMD Adaptive Behavior Scale-Revised or the Vineland Social Maturity Scale-Revised and for assessing maladaptive behavior are rating scales such as the Burks' Behavior Rating Scales or the Behavior Rating Profile.

For a more detailed measure of those items necessary for independence and successful life adjustment, the use of Social and Prevocational Information Battery is recommended with EMR students and Form T of this tool for moderately retarded persons (Halpern, et al, 1982).Additionally, the Career

Adaptive Behavior Inventory(CAB) for younger disabled students aged three to fifteen years can be useful (Lombardi, 1980). For those adolescents and adults suspected of lower intellectual functioning, psychiatric disorders, and social disadvantagement, the Street Survival Skills Questionnaire is suggested (Halpern, et al, 1982). The lack of appropriate social skill more often than lack of job skills has been identified as a major reason handicapped student's do not keep jobs upon leaving school (Brolin, 1973; Mori, 1979). Therefore, the assessment in the social-emotional area is important for successful work adjustment.

Interest. The well-known and commonly used interest inventories such as the Strong Vocational Interest Blank and the Kuder would probably be of limited usefulness here because of their dependence on verbal abilities (Brolin, 1982). Even with reading each item to the student, the results would be invalid if the student did not have a highly developed receptive language, in addition to changing the normative data standardization procedures. Picture inventories may be more appropriate tools for eliciting valide information from some handicapped students. Two such picture inventories have been developed specifically for use with and normed on the retarded: Reading Free Vocational Interest Inventory (Revised) and Vocational Interest and Sophistication Assessment (VISA). The former test measures high-low vocational interest in thirteen job clusters and the later measures job knowledge in each area in addition to interest in ten areas (Parnicky & Presnall, 1980). For more complex picture interest inventory, the Geist Picture Interest Inventory contains detailed pictures of higher level occupations (Brolin, 1982). Designed for and normed on low literate persons is the Wide Range Interest Opinion Test (WRIOT)-Revised (Alcorn & Nicholson, 1975).

Vocational Aptitude. In the assessment of aptitude for certain vocational tasks requiring motor coordination, some measure of dexterity is generally given. The choice of the instrument depends on the type of dexterity to be measured. For example, the Purdue Pegboard measures gross movements of hand, fingers, and arm as well as tip of finger dexterity. Crawford Small Parts Dexterity Test measures fine eye-hand coordination and the Minnesota Rate of Manipulation Test assesses arm-hand dexterity. Bennet Hand Tool Dexterity Test measures proficiency in using ordinary mechanics tools, thus assessing both mechanical ability and previous experience in handling tools. According to Overs (1970), standardized tests of manual

dexterity predict as well as job sample tasks and may be administered in a much shorter time. Additionally, the administration of a dexterity test is also a learning experience for the handicapped student--as in the adult world, industries also administer dexterity tests for applicant selection.

Work Evaluation Systems. The market-place is saturated with commercial work evaluation systems which are for the most part costly and time consuming to administer in their entirety. The advantages of using such a system, however, are that it (1) tends to motivate students because the work samples are more like real job tasks than paper and pencil assignments; (2) provides important observation information that can help to predict functional ability; (3) provides experiences for hands-on testing following oral directions; and (4) allows for experiences that will be helpful in program and career planning (Scott & Sarkees, 1982). According to Tellefsen (1982), the most reliable vocational information is from long-term observation in an actual work setting since the evaluator can obtain information about work tasks and and interactional social behaviors. Although the most effective method to measure vocational potential is job try-out, it is also the most expensive and often the least feasible; therefore, the work sample approach provides a higher predictive validity than does standardized paper and pencils tests (Mutter & McClung, 1981).

Locally Produced Work Samples. The purchase of a commercial work evaluation system to use the work sample form of assessment is not necessary. Work samples may be locally developed to represent jobs that actually exist within the specific region. Work sample development, however, is a tedious process which requires time to establish local norms (Sitlington & Wimmer, 1978). Work samples could be administered and/or developed by vocational education teachers and counselors or vocational rehabilitation personnel.

Summary

Vocational assessment is an integral component in the process of providing handicapped students skills for employability, independence, and successful life adjustment. When psychological reevaluations contain vocational components, data can be generated for use in career/vocational planning. The inclusion of the vocational data into the written psychological report should not significantly alter the format of the report, but should be integrated into the different phases of the report. Thus, vocationally relevant conclusions and recommendations will be written with other summary statements and suggestions (Levinson & Shepard, 1982). The school psychologist is a part of the multi-disciplinary evaluation team that can make a significant impact on the career/vocational directions of handicapped students.

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APPENDIX

COMMERCIAL VOCATIONAL EVALUATION SYSTEMS

name	target population	basis of system
Brodhead-Garrett	handicapped & disadvantaged	(not specified)
COATS	secondary education	research studies of need areas
HESTER	physically disabled	DOT
JEVS	disadvantaged	DOT
McCarron-Dial	mentally retarded, mentally ill, learning disabled	5 neurophyschological factors
Micro-TOWER	general rehabilitation population	DOT
SINGER	special needs	groups of related jobs
TAP	mental levels above TMR	occupational clusters
TOWER	physically & emotionally disabled	job analysis
Valpar	industrially injured	trait & factor
Valpar #17	mentally retarded	(not specified)
VIEWS	mentally retarded	DOT
VITAS	employment service appl.	DOT
WREST	severely disabled (mentally & physically)	(not specified)